# ESP in-service teacher training programs: Do they change Iranian teachers' beliefs, classroom practices and students' achievements?

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## **Abstract**

Dudley-Evans and St John (1998) coined the term "practitioner" for ESP teachers since, they claimed, many pivotal roles such as course designers, materials developers, researchers, evaluators, and classroom teachers should be taken on by an ESP instructor. That is why teaching English for Specific Purposes (ESP) requires a special approach to the training of the teachers who are supposed to teach English through content. The present study aimed at investigating the underlying effects of an ESP in-service teacher training program on the beliefs and instructional practices of Iranian ESP teachers as well as students' achievements. A population of 423 Iranian ESP teachers responded to a survey questionnaire on teachers' beliefs and classroom practices. This was followed by selecting 120 teachers and assigning them into two experimental and two control groups. The experimental groups participated in a ten week ESP in-service teacher training program. The outcomes of Chi-square, Mann-Whitney U, and Wilcoxon Signed Rank tests clearly revealed the influential and constructive role of the training program on the beliefs and classroom practices of ESP teachers. The study also found significant difference between the achievements of students who enjoyed trained ESP instructors in comparison to those who received untrained ESP instructors.

**Keywords:** teachers' beliefs, ESP teacher training program, classroom practice

#### Resumen

Los programas de formación para profesores de IFE en activo: ¿Cambian en Irán las creencias de los profesores de IFE, las prácticas docentes en el aula y los logros alcanzados por los estudiantes?

Dudley-Evans y St John (1998) acuñaron el término "practicante" para referirse a los profesores de inglés con fines específicos (IFE) en el entendimiento de que un instructor de IFE debía asumir muchos papeles centrales como diseñadores de cursos, elaboradores de materiales, investigadores, evaluadores y docentes en el aula. Esta es la razón por la que la enseñanza de IFE requiere un enfoque especial para la formación de profesores que habrán de enseñar una lengua a través de unos contenidos. Este trabajo tiene por objetivo investigar los efectos subyacentes a los programas de formación de profesorado de IFE en activo por lo que respecta a las creencias y las prácticas en la instrucción de los profesores iraníes de IFE así como los logros alcanzados por los estudiantes. 423 profesores de IFE en Irán respondieron a través de un cuestionario sobre sus creencias y prácticas docentes en el aula. Seguidamente se seleccionaron 120 profesores que fueron divididos entre dos grupos experimentales y dos grupos de control. Los profesores de los grupos experimentales participaron en un programa de formación de diez semanas para profesores en activo de IFE. Los resultados de las diversas pruebas y su interpretación estadística pusieron de manifiesto claramente la repercusión del programa de formación así como su influencia constructiva sobre las creencias de los profesores de IFE y sus prácticas docentes. Asimismo, en el estudio se encontraron diferencias significativas entre los logros alcanzados por los estudiantes que habían contado con profesores que habían recibido la formación y los que habían contado con profesores que no habían recibido dicha formación.

Palabras clave: IFE, creencias de los profesores, programa de formación de profesores de IFE, prácticas docentes en el aula.

## Introduction

Undoubtedly, the recent developments in nations' political, cultural, social, athletic, business, touristic, and economic ties as well as the recent increase in ESP conference presentations, professional and academic gatherings, invited lectures, and on-line workshops will lead us to conclude that ESP has gained a significant place not only among academic circles but it has gained the shape of a "new industry" in the 21st century. However, ESP has developed at different speeds in different countries due to the different needs and specifications that arise in each language-learning setting. Thus, it may not be considered a monolithic universal phenomenon (Hutchinson & Waters, 1987).

Teaching English for Specific Purposes (TESP) has been considered a separate undertaking from English language teaching. Dudley-Evans and St John (1998) coined the term "practitioner" for ESP teachers since, they believe, many pivotal roles such as course designers, materials developers, researchers, evaluators, and classroom teachers should be taken on by an ESP instructor. Therefore, ESP teaching requires a special approach to the training of the teachers who are supposed to teach English through content. First of all, EFL teachers should be provided with the necessary knowledge and tools to deal with students' special field of study, because they are not specialists in the field, but in teaching English, their subject matter is English for the profession but not the profession in English. They are expected to help students, who know their subject matter better than them, develop the essential skills in understanding, using, and/or presenting authentic information in their profession (Bojovic, 2006). This is a quite challenging task to perform with any knowledge of content through which they will teach English as it facilitates learners' acquisition of formal schema of academic texts.

In the Iranian higher education system, students majoring in the different fields offered in universities throughout the country have to pass a two-credit Basic English course followed by a three-credit General English course. They are then required to pass a two or three-credit ESP course, depending on their majors. Most of the students in ESP classes feel the necessity mainly to pass the final exams. Such students claim that they cannot gain mastery over the English language within a limited course of study. But the procedures followed in ESP classes do not fulfil these students' needs. That is to say, the classes are predominantly teacher-centered, with the exception of students being required to read a few lines from the booklet, one by one, offering the meaning of the words if they are asked. Teachers offer students a model of the language forms along with technical terms and register which provide the focus of a particular lesson. They produce model sentences and ask learners to translate. They ask questions designed to elicit specific responses which practice the target form for a particular lesson, and finally they translate the selected text. However, there is dissatisfaction with the dominant paradigm and it is challenged by new values which emphasize the centrality of the learner, the social nature of language, and its availability for spontaneous, original personal use. In other words, on the one hand ESP is

informed by established practice and on the other hand that practice is challenged by theory and also by the experience of many practitioners. Thus the challenge is to propose a methodological framework which is able to integrate theory into practice, formal and communicative activities, but there is no clear consensus among Iranian ESP instructors in terms of applying a rather thorough and uniform model of presenting ESP materials. However, a change in the existing paradigm strongly depends on a remarkable change in a number of factors including ESP teachers' beliefs, curriculum, educational policies, syllabi and textbooks.

In an attempt to clarify factors influencing ESP instruction in Iranian academic settings Farhady (2005) refers to the important role of teacher variable. He believes that teachers should be equipped with the trends and developments of ESP. In other words, there should be a sense of uniformity among the ESP teachers' attitudes, beliefs, methods, techniques, and classroom activities. Scott (2001) argues that while TESOL, TEFL, etc. courses for teachers provide a good foundation for the teaching of general language, they are insufficient for the teaching of EAP. This scholar believes that EAP's "distinctiveness derives from its aim, which is the promotion of student learning on courses within higher education institutions" (Scott, 2001: 19). Errey (2001) agrees that specialized teacher training is needed, involving principles and approaches appropriate for EAP and ESP. This is, in fact, now beginning to happen with an MA ESP developed by Candlin and Bhatia at City University in Hong Kong and Oxford Brookes University offering an MA in Teaching EAP/ESP in 2000.

Lack of having uniformity in terms of teaching ESP materials, the absence of ESP teacher training programs, and misconceptions about ESP courses are instances of Iranian ESP teachers' failure in successful implementation of ESP courses. Therefore, our ultimate aim is to conduct an ESP in-service teacher training program within Iranian ESP contexts to investigate whether such a program can bring any remarkable change on the beliefs and classroom practices of Iranian ESP instructors or not. Moreover, the present study attempts to come up with reasonable answers to the following questions:

- 1. Is there any significant difference between the pedagogical beliefs of Iranian ELT and subject-matter ESP instructors about ESP?
- 2. Is there any significant difference between the instructional practices of Iranian ELT and subject-matter ESP teachers in ESP classes?

- 3. Is there any significant difference between the pedagogical beliefs of Iranian ELT and subject-matter ESP instructors after the ESP in-service teacher training program?
- 4. Is there any significant difference between the instructional practices of Iranian ELT and subject-matter ESP instructors after the ESP in-service teacher training program?
- 5. What impact(s) does the ESP in-service teacher training program have on students' achievements?

# Subjects

A population of 423 Iranian male and female university teachers who teach ESP courses at Iranian Sate and Azad Universities participated in this study. These ESP teachers were either TEFL or non-TEFL (subject-matter) majors with university degrees of MA/Ms or Ph.D. This sample was intended to complete a survey questionnaire about ESP teachers' beliefs and instructional practices. The main subjects of the present study were selected from among the respondents to the questionnaire in the first group and included 120 TEFL and non-TEFL major ESP teachers. Then the subjects were divided into two experimental and two control groups each of which included 30 teachers.

In addition to the ESP teacher participants, 142 university sophomores who took ESP as a compulsory course participated in this study. The sample included students from Business Administration (a sub-discipline from Humanities). This sample has been selected from among a total of 242 students by administering a language proficiency test.

## Instrumentation

The instruments selected as measures in this study comprise: (1) a survey questionnaire developed by the researchers; (2) the sample version of PET (2009); and (3) a Cambridge University Business English (University of Cambridge, 2006) test package. The questionnaire used for this study targets close-ended sections that require teachers to respond to statements on a five point Likert scale. Firstly, it attempted to identify the beliefs ESP teachers have regarding ESP and its role in language learning and teaching in Iranian academic

settings. Secondly, the questionnaire aimed to obtain information about teachers' reported classroom practices regarding the teaching of ESP courses.

In order to select the secondary group of subjects (students) in terms of language proficiency qualifications, the investigators had to administer a standard language proficiency test (PET) to a total of 242 Business Administration students.

Both experimental and control group students in the present study were intended to take a final exam. So, a Cambridge University ESP test package consisting of four modules of listening, reading, writing, and speaking was implemented as the final exam to the students. The listening and reading modules for Business Administration students consisted of five sections which expected the students to respond to multiple-choice, gap-filling, true/false, matching, and form filling questions. The writing module consisted of two sections. In the first section, the students were expected to write a memo about 20-30 words (that is, a piece of communication with a college within a company). For the second part, the students had to write a piece of business correspondence of 40-50 words and were also required to read a letter and respond to it. For the speaking module, the students were invited to talk about two distinct topics, one about their field of study and the other about an unfamiliar topic.

## Design

The present study combines qualitative and quantitative methods of research. It fits partly into the descriptive paradigm as it aims to observe and describe systematically, factually and accurately, the qualities of a preconceived phenomenon (i.e. teachers' beliefs and instructional practices) in a so called naturally occurring context (i.e. ESP classes) through a questionnaire based survey. The study is also partly quasi-experimental. Brown (1988) characterizes a quasi-experimental design as one that involves the administration of a pre-test, treatment and post-test on naturally occurring groups. In this respect, the teacher training program that is going to be carried out in this study can be regarded as the treatment and exploration of ESP teachers' beliefs as well as their instructional practices before and after the treatment along with students' performances on ESP tests can be regarded as the pre and post-tests. Therefore, a pre-test/posttest design will form the framework of the present study.

## **Procedure**

A questionnaire-based survey is used to easily obtain information from a large number of participants (423) in order to understand the beliefs of ESP teachers in the context of study.

The next step would be carrying out an in-service ESP teacher training program which lasted for 10 weeks. The focus of the program was mainly on making the teachers familiar with "theoretical approaches" and "methods of ESP instruction" in a learner-centered context, "practical aspects of ESP instruction" based on current models, "methods of assessing the students' needs", and making the ESP instructors familiar with "methods of evaluating" the students in ESP classes.

To do this, from the first sample population (423) we needed two groups of participants, one experimental and the other the control group. The experimental group included 60 ELT and non-ELT instructors. Then they were divided into two groups of 30 in which exclusively ELT or subjectmatter ESP instructors were placed. The same procedure was applied to the control group participants. The underlying principle of ESP teachers' training program originated from the present literature and predominantly from a large-scale ESP needs analysis project carried out by Farhady (2007). The focus of the program was mainly on making the teachers familiar with theoretical approaches and methods of ESP instruction in a learner-centered context, practical aspects of ESP instruction based on current models, and methods of assessing the students' needs.

The final step comprises two parts. The first part includes conducting a survey study among the ESP teachers who received the training program to see whether the ESP teacher training program was efficient enough to bring about any changes in their beliefs and conceptualizations about ESP courses and method(s) of instruction or not. This was carried out through readministering the first questionnaire. The second part consists of administering an ESP achievement test to students in order to see whether their teachers' in-service training course had any impact on their performances or not. The first experimental group of students benefitted from a trained ELT instructor while a trained subject-matter instructor undertook the teaching ESP materials to the second experimental group students. The students in control groups received the instructors which did not participated in the ESP teacher training program but had previously responded to the questionnaire. Meanwhile, the Business Administration

Department had recommended its ESP teachers to teach the same textbook to the students since a uniform and similar final exam was supposed to be administered simultaneously for all students. Therefore, both trained and untrained ESP instructors reached a consensus on teaching the course book titled Business Vocabulary in Use by Mascull (2002).

## Results

The first part of the questionnaire dealt with investigating the frequency of classroom activities carried out in Iranian ESP classes. Therefore, 16 highlighted classroom activities were chosen and given to a total of 423 Iranian ESP teachers. A 5-point-scale ranging from "always" to "never" was used to determine the frequency of these classroom activities in the ESP classes. Table 1 reveals the descriptive as well as inferential statistics for implementing instructional activities by Iranian ELT and subject-matter ESP teachers.

The teachers were asked to determine the frequency of the first classroom activity, explaining technical words in Persian. The results indicated that 51% of the ELT instructors and 72.6% of the non-ELT teachers "frequently" explain technical words in Persian. The Chi-square results indicate the Sig. value of (.000) which is smaller than .05; therefore, we can conclude that the proportion of English major ESP teachers who explain technical words in Persian is significantly different from those non-English majors. Swales (1985) proposed that the importance of teaching vocabulary in ESP is widely accepted. However, Hutchinson and Waters (1987) believed that the teaching of technical vocabulary is not the responsibility of the ESP teacher. With regard to dealing with unfamiliar technical vocabulary in ESP classes Dudley-Evans and St John (1998) believe that in many cases there is a oneto-one relationship between the terms in English and the learners' first language, and so it will be enough to translate the term into the learners' native language after a brief explanation. Although there is a gap between both traditions, the frequencies show that there is a general tendency among Iranian ESP instructors to provide the learners with explanation of technical words in Persian.

The results approximately approve the fact that grammar is overlooked in most ESP classes. This is a misconception about the role of grammar in ESP teaching. Dudley-Evans and St John (1998) believe that while much of the skills-oriented work in ESP does not concentrate on grammar in itself, it is incorrect to consider grammar outside the realm of ESP.

| Classroom Activity  | Field |       | -      | <b>YO GUO NOU</b>  |       |        | Chi-<br>Square  |
|---|-------|-------|--------|--------------------|-------|--------|-----------------|
| Classroom Activity  | rieiu | never | seldom | requency<br>smtmes | often | always | test<br>results |
| 1.Explaining technical                                    | ELT   | 0     | 1      | 9                  | 93    | 54     |                 |
| words in Persian  | S.M   | 1     | 1      | 3                  | 68    | 193    | .000            |
| Explaining grammar  | ELT   | 49    | 101    | 7                  | 0     | 0      | .314            |
|   | S.M   | 69    | 187    | 10                 | 0     | 0      |                 |
| Translating ESP   | ELT   | 0     | 0      | 1                  | 23    | 133    | .680            |
| texts into Persian  | S.M   | 0     | 0      | 2                  | 27    | 234    | -1              |
| Doing reading   | ELT   | 0     | 2      | 20                 | 102   | 33     | .133            |
| comprehension ex.   | S.M   | 3     | 1      | 29                 | 207   | 26     | -1              |
| 5. Asking & answering                                     | ELT   | 50    | 89     | 7                  | 9     | 2      | .000            |
| questions in English                                      | S.M   | 217   | 46     | 3                  | 0     | 0      | -1              |
| 6. Classroom  | ELT   | 132   | 21     | 4                  | 0     | 0      | .065            |
| presentations in English                                  | S.M   | 209   | 57     | 0                  | 0     | 0      | -1              |
| 7. Note-taking from                                       | ELT   | 108   | 49     | 10                 | 0     | 0      | .113            |
| classroom lectures  | S.M   | 196   | 67     | 3                  | 0     | 0      |                 |
| 8. Writing classroom                                      | ELT   | 127   | 29     | 1                  | 0     | 0      | .125            |
| reports in English  | S.M   | 195   | 68     | 3                  | 0     | 0      | •'              |
| Providing chances   | ELT   | 38    | 86     | 32                 | 1     | 0      | .000            |
| for students' classroom discussions in English            | S.M   | 171   | 92     | 3                  | 0     | 0      | •               |
| 10. Listening to audio                                    | ELT   | 41    | 53     | 40                 | 23    | 0      | .000            |
| files   | S.M   | 177   | 84     | 5                  | 0     | 0      |                 |
| 11. Developing study                                      | ELT   | 7     | 44     | 83                 | 20    | 3      | .000            |
| skills activities   | S.M   | 102   | 72     | 92                 | 0     | 0      | •               |
| 12. Summarizing   | ELT   | 102   | 51     | 4                  | 0     | 0      | .381            |
| textbooks or pamphlets in English                         | S.M   | 181   | 82     | 3                  | 0     | 0      | •               |
| 13. Answering essay                                       | ELT   | 30    | 40     | 51                 | 36    | 0      | .000            |
| type quizzes in English                                   | S.M   | 74    | 178    | 13                 | 1     | 0      | •               |
| 14. Writing letters or                                    | ELT   | 120   | 22     | 15                 | 0     | 0      | .090            |
| articles in English                                       | S.M   | 217   | 36     | 13                 | 0     | 0      | •               |
| 15. Watching films or                                     | ELT   | 52    | 71     | 26                 | 8     | 0      | .000            |
| other video files   | S.M   | 161   | 100    | 5                  | 0     | 0      |                 |
| 16. Conducting  | ELT   | 43    | 90     | 18                 | 4     | 2      |                 |
| collaborative and cooperative activities in the classroom | S.M   | 64    | 197    | 5                  | 0     | 0      | .062            |

Table 1. Iranian English major vs subject-matter ESP teachers' classroom activities.

The third activity, translating the ESP texts into Persian, favored the common consensus of both groups. This is certainly in line with one of the themes extracted from our ESP classroom observations carried out at the initial stages of the present study. The implementation of translation by instructors as the easiest way of conducting ESP classes as well as the removal of students' psychological barriers in such circumstances probably caused a strong tendency among ESP teachers to predominantly focus on translation.

English major instructors as well as their non-ELT counterparts predominantly "often" do reading comprehension exercises. It seems the rationale for emergence of ESP in Iran is to teach students "reading skills" to enable them to use English to study their subject areas. This can be easily seen from the organization and compilation of a number of ESP sources, that is SAMT textbooks (which are textbooks published by the Iranian Center for Compiling Books in the Humanities), Payame Noor Publications, etc. So, reading comprehension has favored considerable superiority among language skills in Iranian ESP classes.

Questioning is a powerful means of controlling communication. It is, in fact, a good tool for the teacher to provide the learners with opportunities to think better and develop classroom interactions efficiently. The instructors were asked to determine the frequency of ESP students' responses to their teachers' question(s) in English, the classroom activity 5. Among non-English ESP teachers, 81.6% claimed that they "never" practice such an activity in their classes while only 31.8% of the ELT instructors overlooked the application of classroom activity 5. The Chi-square results also indicate a significant difference between the two groups in implementing classroom activity 5.

Classroom activity 6 deals with ESP students' classroom presentations in English. As it is shown in Table 1, the majority of English and non-English ESP instructors clearly stated that they "never" ask their students to perform such a task in their classes. The inferential statistics approves the fact that there is no significant difference between these two groups of teachers in implementing such activity in ESP classrooms. The poor general language proficiency of Iranian ESP students is the big hurdle in implementing such an activity in ESP classes. However, we cannot ignore the reluctance of ESP instructors towards classroom presentations in English.

The teachers were asked to determine the frequency of students' note taking from ESP classroom lectures, classroom activity 7. Note-taking is the straightforward writing down of whatever is said or written on a board (Jordan, 1997). It seems that since few or no lecture may be presented in Iranian ESP classrooms, students are not accustomed to such activity. Another reasonable interpretation is due to the fact that students may be inexperienced in listening to spoken English with its idiomatic expressions. However, insufficient linguistic competence of the subject-matter instructor as well as the insufficient subject specific knowledge by ELT instructors

might be other influential reasons for ignoring such an activity in Iranian ESP classes.

Writing classroom reports in English comprised the eighth activity. The results of descriptive statistics in Table 1 show that 80.9% of the ELT instructors as well as 74.4% of their non-ELT counterparts "never" ask their students to write classroom reports in English whereas only 0.6% of the English majors and 1.1% of the subject-matter ESP teachers believe that they "sometimes" ask their students to write classroom reports in English. The Chi-square results reveal that there is not any significant difference between both groups.

Providing opportunities for students to hold classroom discussions in English comprise classroom activity 9. More than 64% of the non-English major ESP instructors "never" favored the application of such task while the same frequency was reported by only 24% of the ELT instructors. This gap may extensively be due to instructors' fields of study and interests. It goes without saying that the ignorance of activities 5 and 9 by the majority of non-ELT instructors is due to a couple of reasons. First and foremost, we do not have a thorough visualization of the objectives of ESP programs in our academic settings. Teachers may claim that these activities are exclusive to general English classes not to ESP courses. The second major reason lies on poor language proficiency of Iranian ESP students; however, no one is completely sure whether the non-ELT instructors have a good command of linguistic competence or not. The third reason might focus on the time budgeting of ESP classes in Iran. During a limited span of 90 minutes per week there may be no point in dealing with oral practice activities by ESP instructors. However, the tendency of applying oral activities by English major instructors is highly felt which is mainly due their linguistic background and prior ELT experience.

The ESP teachers were asked to determine the frequency of activity 10 which dealt with listening activities of the students in ESP classrooms. Only 26% of the ELT teachers claimed that they "never" do listening comprehension tasks in their ESP classes while this was strictly true for 66.5% of the subject-matter teachers. As Robinson (1991) has proposed, listening in ESP classes involves listening to lectures as well as classroom seminars. Therefore, ESP students do need exposure to short and lengthy examples of listening in preparation for the normal lectures of the real life. However, such exposure is perhaps best obtained live. It seems all language

skills except reading comprehension are predominantly overlooked by the majority of ESP instructors. However, we do not mean the whole language skills should be similarly emphasized in ESP classes as far as the specificity of the purposes is concerned.

Table 1 also represents how ESP instructors determined the frequency of study skills activities in their classes. In addition to language skills, this item deals with understanding of tables, graphs, charts, special dictionaries, webrelated skills, and catalogues. The majority of non-ELT teachers (38.3%) "never" assigned study skills activities while approximately 53% of the English majors claimed that they "sometimes" utilize them in their classes. The Chi-square test results show the significant difference between the two groups as well. The main reason rests on the present ESP textbooks which scarcely have provided their audience with fruitful sources of information. In other words, ESP experts, who have a key role in syllabus design and materials development, should employ this crucial aspect of learning in ESP textbooks as well.

The ESP instructors' responses to classroom activity 12 or summarizing texts or articles in English are shown in Table 1. Summary writing, as stated by Jordan (1997), is an important aspect of academic writing, and is linked to academic reading by means of note-taking. It causes the learners to integrate the information from previous researchers in their fields of study in an accurate style. In the present study both groups claimed that they predominantly "never" use such an activity in their ESP classrooms. That is why writing is the most neglected skill among language skills in Iranian academic settings.

The frequencies of classroom activity 13, answering essay type classroom quizzes, are shown in Table 1. The rationale for including such item was to see whether the writing skill of the students is being frequently judged by their ESP instructors or not. However, one may claim that there are other alternative ways to assess and evaluate the writing skill of students in ESP classes. Since it can be an example of a diagnostic test, it provides fruitful information for the teachers to see whether there is area of difficulty in students' writing or not. This type of test acts as a spur or motivation for students by setting short-term goals. Subject-matter ESP teachers maintained that they "seldom" have their students answer essay type classroom quizzes while the majority of ELT instructors "sometimes" made use of such activity in their classes. Table 1 testifies that there is a

significant difference between the English major and non-English major ESP teachers.

The ESP instructors were supposed to determine the frequency of classroom activity 14 which dealt with students' article or letter writing in their specific fields. Over 76% of the ELT teachers as well as 81% of the subject-matter ESP instructors "never" utilized such an activity in their classrooms. This is mainly due to the fact that the whole objectives of ESP programs have not been clearly specified for our teachers. The value of .09 evidentially approves that there is not any significant difference between the two groups in terms of implementing this classroom activity.

The responses of the ESP teachers in terms of specifying the frequency of activity 15, watching films or video programs in specific fields, are presented in Table 1. The outcomes reveal that more than 60% of the subject-matter instructors "never" made use of technological aids in their ESP classrooms while only 33% of the ELT teachers did the same. The Chi-square test results show that there is a significant difference between the two groups regarding the manipulation of video aids.

The majority of the instructors in both groups reported that they "seldom" make use of students' cooperative activities in conducting their ESP classes, activity 16. This might be due to lack of sufficient time or insufficiencies in establishing student-centered atmosphere in ESP classes. The inferential statistics show that there is no significant difference between ELT and non-ELT instructors in implementing such an activity in ESP environments.

The second part of the questionnaire dealt with identifying Iranian teachers' beliefs about ESP and methods of instruction. It is made up of 21 statements and requires the respondents to rate each statement on a five point scale, ranging from "strongly agree" (SA) to "strongly disagree" (SD) - and including "agree" (A); "neither agree nor disagree" (N); and "disagree" (D). Since it was too much difficult to include a large number of widespread beliefs in a very limited pool, the researcher decided to merely focus on some common and highlighted beliefs. Therefore, based on the present literature (Hutchison & Waters, 1987; Strevens, 1988; Robinson, 1991; Jordan, 1997; Dudley-Evans & St John, 1998; Basturkmen, 2006) and the outcomes of the EAP needs analysis project carried out by Farhady (2007), we specified 21 types of pedagogical beliefs on ESP domain. Three underlying constructs namely teaching ESP, students' needs, and beliefs about students' practice were explored for the aforementioned beliefs.

| Item   | Field      | Frequency |          |          |               |               | Chi-<br>Square  |
|--|------------|-----------|----------|----------|---------------|---------------|-----------------|
|  |            | SA        | Α        | N        | D             | S D           | test<br>results |
| 1. Content teaching                          | ELT        | 83        | 60       | 10       | 3             | 1             | .000            |
| 2. Content familiar                          | S.M<br>ELT | 204<br>9  | 41<br>62 | 16<br>71 | <u>4</u><br>8 | <u>1</u><br>7 | .000            |
| Z. Content lamiliai                          | S.M        | 2         | 3        | 201      | 38            | 22            | .000            |
| 3. Sufficient English for others             | ELT        | 120       | 32       | 5        | 0             | 0             |                 |
| •  | S.M        | 157       | 83       | 34       | 1             | 1             | .000            |
| Content problems                             | ELT        | 1         | 3        | 10       | 51            | 92            |                 |
|  | S.M        | 177       | 67       | 17       | 4             | 1             | .000            |
| <ol><li>Technical word matching</li></ol>    | ELT        | 85        | 54       | 12       | 5             | 1             |                 |
|  | S.M        | 160       | 80       | 24       | 1             | 1             | .143            |
| <ol><li>Non-English teacher better</li></ol> | ELT        | 0         | 0        | 0        | 0             | 157           |                 |
|  | S.M        | 188       | 60       | 13       | 4             | 1             | .000            |
| 7. Multi-discipline                          | ELT        | 0         | 47       | 82       | 15            | 13            |                 |
|  | S.M        | 0         | 7        | 189      | 35            | 35            | .000            |
| Persian language                             | ELT        | 97        | 55       | 4        | 1             | 0             |                 |
|  | S.M        | 166       | 74       | 24       | 1             | 1             | .333            |
| Language application                         | ELT        | 0         | 71       | 27       | 58            | 1             |                 |
|  | S.M        | 2         | 26       | 69       | 167           | 2             | .000            |
| <ol><li>Conducting needs analysis</li></ol>  | ELT        | 89        | 55       | 11       | 2             | 0             |                 |
|  | S.M        | 6         | 52       | 203      | 5             | 0             | .000            |

Table 2. Descriptive statistics for ESP teachers' beliefs about teaching ESP.

As Table 2 shows, the difference between English major and subject-matter ESP teachers is not statistically significant in terms of the items 5 and 8. In other words, the application of students' mother tongue in ESP classes for better conveying the meaning of technical words and comprehending the texts is highly prioritized among both groups. The rest of the items demonstrate the significant difference between two traditions. Since the first factor covers the items which correspond to ESP teachers' beliefs about teaching ESP, the gap between English and non-English major instructors is really remarkable.

ELT teachers seemed to better digest both the mechanics and objectives of teaching while their non-English major counterparts focused on the superficial aspects of teaching ESP. One of the underlying reasons lies on the fact that the nature of ELT is strongly tied to the theories of language learning and teaching. Therefore, it is quite natural to see that the non-English majors who received no specific training in terms of teaching English as a foreign language showed quite different ideas regarding the nature of teaching ESP courses. Table 3 represents the items which corresponded to the second factor, teachers' beliefs about students' practices in ESP classes.

| Item                              | Field Frequency |     |    | Chi-<br>Square |     |     |                 |
|-----------------------------------|-----------------|-----|----|----------------|-----|-----|-----------------|
|                                   |                 | S A | Α  | N              | D   | S D | test<br>results |
| Understanding without translation | ELT             | 6   | 39 | 25             | 68  | 19  |                 |
|                                   | S.M             | 0   | 3  | 16             | 201 | 46  | .000            |
| 2. Future needs                   | ELT             | 23  | 58 | 74             | 2   | 0   |                 |
|                                   | S.M             | 12  | 45 | 204            | 5   | 0   | .000            |
| 3. Lg evaluation                  | ELT             | 40  | 49 | 66             | 2   | 0   |                 |
|                                   | S.M             | 6   | 45 | 210            | 5   | 0   | .000            |
| Developing Ig activities          | ELT             | 3   | 22 | 90             | 42  | 0   |                 |
|                                   | S.M             | 6   | 45 | 191            | 24  | 0   | .001            |
| <ol><li>Study skills</li></ol>    | ELT             | 2   | 43 | 96             | 16  | 0   |                 |
|                                   | S.M             | 6   | 52 | 185            | 23  | 0   | .476            |

Table 3. Descriptive statistics for ESP teachers' beliefs about students' needs.

The results of Table 3 clearly show the significant differences between the beliefs of English major and non-English major ESP teachers in terms of the first four items. As it can be seen from the table, except one item, the respondents predominantly had "neutral" beliefs about the proposed ideas. This may be a reflection of conservatism among ESP teachers who did not state their clear ideas. This conservatism seems to be derived from the fact that the objectives of implementing ESP courses have not been clearly specified in Iranian academic circles yet. Lack of teachers' awareness about the role of ESP learners, their needs, and presenting language learning activities in ESP classes has caused non-English major instructors to be on the safe side of responding to these items. However, this reluctance is felt among English major instructors as well.

For further evidence, we can refer to the ESP syllabi introduced by Iranian Ministry of Science, Research, and Technology (The Supreme Council of Curriculum Planning) for different disciplines. These syllabi, which were mostly created in stereotype form, do not obviously specify the real goals of ESP programs as well as the role of the teachers, the learners, and materials in ESP classes.

With regard to the last item which focused on "the necessity of developing study skills activities among students in ESP classes", the Chi-square test did not show any statistically significant difference between English major and non-English major instructors. Both groups reported "neutral" belief about this item which signifies that there is no clear specification of objectives in ESP programs. Now, let us deal with the items corresponded to the third factor.

| ltem                              | Field | Frequency |     |     |    | Chi-<br>Square |                 |
|-----------------------------------|-------|-----------|-----|-----|----|----------------|-----------------|
|                                   |       | S A       | Α   | N   | D  | S D            | test<br>results |
| 1. Translation                    | ELT   | 85        | 61  | 4   | 3  | 4              |                 |
|                                   | S.M   | 169       | 80  | 12  | 4  | 1              | .052            |
| 2. Independent speaking           | ELT   | 1         | 1   | 37  | 49 | 69             |                 |
|                                   | S.M   | 2         | 0   | 59  | 17 | 188            | .000            |
| 3. No listening-speaking          | ELT   | 0         | 59  | 38  | 54 | 6              |                 |
|                                   | S.M   | 1         | 172 | 92  | 1  | 0              | .000            |
| 4. Grammar                        | ELT   | 10        | 20  | 89  | 38 | 0              |                 |
|                                   | S.M   | 14        | 53  | 194 | 5  | 0              | .000            |
| <ol><li>Language skills</li></ol> | ELT   | 3         | 55  | 91  | 8  | 0              |                 |
|                                   | S.M   | 6         | 45  | 192 | 23 | 0              | .143            |
| 10. Memorizing words              | ELT   | 86        | 60  | 8   | 2  | 1              |                 |
|                                   | S.M   | 181       | 64  | 16  | 4  | 1              | .000            |

Table 4. Descriptive statistics for ESP teachers' beliefs about students' practices.

Table 4 represents the ESP teachers' beliefs about the third factor, students' language needs in ESP classes. There was not any statistically significant difference between ELT and non-ELT instructors in terms of the first and the last items (the Sig. values are 0.52 and 0.77, respectively).

The first item emphasizes the utilization of "translation" as the foundation of ESP classroom activities. This is mainly seen through the frequency of considerable positive attitudes of both groups. It is actually in line with our initial observation results which showed that "translation" has occupied most of the Iranian ESP classes' atmosphere. Moreover, majority of both groups strongly agreed on the memorization of technical words as a necessary practice in ESP classes. It seems that the objectives of ESP instruction in our academic settings, learners' insufficient linguistic proficiency, ease of instruction, socio-cultural factors, target language use domains, and political issues have caused ESP instructors to predominantly emphasize on "translation" as the cornerstone of ESP classroom activities. However, no congruence was seen between English major and non-English major ESP instructors in terms of language skills such as listening- speaking activities and grammar teaching. This is mainly due to the fact that English major instructors have sufficient pedagogical competence in terms of conducting language learning courses.

Schleppegrell and Bowman (1986) emphasize that communication skills establish the ESP classroom atmosphere. So, language is acquired by students when they have opportunities to use the language in interaction with each other. However, they further add that an ESP program, for

example, might stress the development of reading skill in students who are preparing for graduate work in engineering; or it might stress the development of conversational skills in students who are studying English in order to become tour guides. But this case was mainly ignored by non-English ESP instructors who reported "neutral" or "opposite" views regarding the necessity of applying language skills in ESP classes. This results from lack of awareness about the appropriate utilization of language skills by non-English major instructors in ESP classes.

Before conducting the ESP in-service teacher training course, four groups of ESP teachers who previously responded to the questionnaire were selected and assigned into control and experimental groups.

The following tables statistically represent the impacts of the training programs on the beliefs and classroom practices of the ESP teachers in experimental groups. The present study also reveals any probable impact(s) of the training program on the classroom achievements of the ESP students.

The p value in Table 5 clearly show that the difference between the beliefs and classroom practices of the English major ESP teachers in experimental group before and after the training program was statistically significant. This factually approves the role of the training program on the beliefs and practices of ELT teachers.

|                        | Beliefs | Practices |
|------------------------|---------|-----------|
| Z                      | -2.051  | -4.790    |
| Asymp. Sig. (2-tailed) | .040    | .000      |

Table 5. Wilcoxon Signed Rank Test for the differences between the beliefs and classroom practices of ELT instructors in experimental group before and after training program.

The inferential statistics and Mann-Whitney U test results shown in Table 6 strongly supports the fact that the beliefs and classroom practices of ELT instructors in experimental group were statistically different from those of the control group after the training program. This can undoubtedly signify the impact of the training program on ESP teachers' beliefs as well as their classroom practices.

|                        | Beliefs | Practices |
|------------------------|---------|-----------|
| Mann-Whitney U         | 220.000 | .000      |
| Wilcoxon W             | 685.000 | 465.000   |
| Z                      | -3.414  | 6.676     |
| Asymp. Sig. (2-tailed) | .001    | .000      |

Table 6. Mann-Whitney U Test for ELT instructors' beliefs and classroom practices in control and experimental groups after training program.

One of the aims of the present study was to find out whether there is any significant difference between the beliefs and classroom practices of the ELT and subject-matter teachers in experimental groups after the training program. As shown in Table 7, despite the fact that both groups received the same training program, there still exists considerable difference between the two groups.

|                        | Beliefs | Practices |
|------------------------|---------|-----------|
| Mann-Whitney U         | 232.000 | 229.500   |
| Wilcoxon W             | 697.000 | 694.500   |
| Z                      | -3.240  | -3.284    |
| Asymp. Sig. (2-tailed) | .001    | .001      |

Table 7. Mann-Whitney U Test for ELT and non-ELT instructors' beliefs and classroom practices in experimental groups after training program.

One of the consequences of the ESP in-service teacher training program would definitely be its either direct or indirect impact on students' achievements in ESP courses. To investigate such impact, 142 previously homogenized Business Administration students who took their compulsory ESP course were selected for the study. Table 8 clearly reveals the students' achievements in the four groups.

| Mean dif. |           |         |            | 95% Confidence Interval |             |             |  |
|-----------|-----------|---------|------------|-------------------------|-------------|-------------|--|
| (I) group | (J) group | (I-J)   | Std. Error | Sig.                    | Lower Bound | Upper Bound |  |
| 1.00      | 2.00      | 7.083*  | 1.718      | .001                    | 2.22        | 11.95       |  |
|           | 3.00      | 9.817*  | 1.730      | .000                    | 4.92        | 14.71       |  |
|           | 4.00      | 11.875* | 1.730      | .000                    | 6.98        | 16.77       |  |
| 2.00      | 3.00      | 2.734   | 1.730      | .478                    | -2.16       | 7.63        |  |
|           | 4.00      | 4.791   | 1.730      | .058                    | 11          | 9.69        |  |
|           | 4.00      | 2.057   | 1.742      | .707                    | -2.87       | 6.99        |  |

Table 8. Scheffe test for sources of differences multiple comparisons.

The results of Scheffe Test, Table 8, clearly show the sources of differences marked by an asterisk (\*) between four groups of students. Goups 1 and 2 favored trained ELT and non-ELT instructors whereas groups 3 and 4 merely benefited from untrained ELT and on-ELT instructors respectively. The difference between the students' achievements in group 1 and each individual group was statistically significant (p<.05) while group 2 students who benefited from a trained non-ELT instructor reported no statistically difference with control group students (groups 3 and 4) in terms of classroom achievement. In spite of the available controversies in the ESP field determining whether ELT or non-ELT instructors are best suited for teaching ESP, the results simply indicate that ESP students taught by trained ELT instructors outperformed other groups. Once more the effectiveness as well as the efficiency of English major teachers in teaching ESP is proved. However, we should not neglect the positive role of the trained non-ELT instructor who was responsible for teaching students in group 2 in comparison to his untrained counterpart teaching ESP materials to group 4 students.

## Discussion

The focal point of the present study rests on the role of an ESP in-service teacher training course on the beliefs and classroom practices of ESP instructors. After conducting a ten week training course, the ESP teachers in experimental groups were given the same questionnaire to see whether there had been any change in their beliefs and attitudes about ESP course and its methods of instruction. The ELT and non-ELT instructors' responses were compared and contrasted with their prior responses as well as the responses of the ESP instructors in control groups. The results showed that the experimental ESP instructors' beliefs significantly differed from their preliminary beliefs after the training course. It is pleasant to state that dramatic change was observed in the beliefs and classroom practices of non-English major ESP teachers after the training program in comparison to their pre-training program. Moreover, considerable difference was reported in the beliefs of instructors in experimental groups with their control group counterparts. The ESP teachers in experimental groups were independently compared with each other in terms of their post training beliefs as well. The outcomes approved the fact that the significant difference between the beliefs of the ELT and subject-matter teachers still existed.

It seems that insufficient knowledge about English language methodology as well as poor competence about ESP instruction, course design, and needs analysis have seriously caused non-ELT instructors to stay far from their ELT counterparts with reference to implementing the objectives of ESP instruction. Since ESP is an approach to language teaching in which all decisions as to content and methodology are based on the learner's rationale for learning (Hutchinson & Waters, 1987), the role of the ESP practitioner is essential to the success of ESP programs. As a matter of fact, ESP combines subject matter and English language teaching. Such a combination is highly motivating because students are able to apply what they learn in their English classes to their main field of study, whether it be accounting, business management, economics, computer science or tourism.

Another step taken in the study was to determine the extent to which the ESP in-service teacher training program had indirectly influenced the students' classroom achievements. Congruent with the outcomes of ELT teachers' beliefs after the training program, the group which enjoyed trained ELT instructor outperformed other groups in the achievement test. This evidentially proves the fact that English major ESP instructors can fulfil course goals much better than specialists in the field provided that they possess a certain level of background knowledge in their students' academic subjects of ESP teaching in order to meet this challenge. In other words, ESP teachers are supposed to be knowledgeable in content areas as well and be able to elicit knowledge from students. However, language teachers are trained to teach linguistic knowledge rather than a content subject. Hence, they may be insufficiently grounded to teach subject matters (Richards & Rodgers, 2001).

Another remarkable point regarding the outcomes of students' achievement test proves the better operation of the group which faced a trained non-ELT instructor versus the one instructed by an untrained non-English major ESP teacher. This can also testify the effectiveness of the ESP teacher training program on the instructional practices of subject-matter teachers. However, it seems difficult to easily fill the existing gap between the ELT and content teachers. Factors such as the potential superiority of ELT teachers over non-ELT instructors in terms of appropriate linguistic competence, language proficiency, linguistic performance, teaching styles, strategic competence, and language awareness are mostly influential in English majors' success in ESP classes.

## **Conclusions**

The most prevailing myth associated to ESP in Iranian academic settings is that "ESP is merely reading" or "ESP is mono-skill" as any teaching action that is related to its design and implementation is devoted exclusively to one ability. Thus, on the one hand, ESP is to be understood as synonymous with reading and, on the other hand, any reading course is to be understood as ESP. Other current myths aligned with ESP reading courses due to the adopted methodology and the specific contents that were developed during the implementation of the ESP courses in the country are: "translation reveals as the fundamental activity in almost all ESP classes", "grammar is not taught", and "Persian has to be used in the classroom as the medium". In order to better understand these misconceptions it is necessary to have a glance at the most underlying principle adopted to teach reading. Some of the procedures put into work in the classroom were based on the belief that cognitive and linguistic difficulties should be eased and balanced during the learning process by making up the most of students' previous knowledge. So, the use of the students' mother tongue and translation will bring psychological, pedagogical, and even economical security for Iranian ESP instructors. This is also a satisfactory condition for ESP students.

There is a vital need to redefine the roles and responsibilities of the ELT and content instructors in the ESP curriculum development of our academic settings. The most optimistic case for the actual presentation of the ESP courses would be the cooperation of ELT and content teachers. The two parties can join in a collaborative task in order to set the goals and plan the needs assessment projects. From cultural and sociological standpoints; however, we wonder whether these two parties can come to a mutual agreement about conducting ESP courses.

And the last word focuses on conducting ESP teacher training programs in which description of competencies and qualifications of a professional ESP instructor is properly established. This can also be a benchmark for accreditation of individuals who would like to start or continue the carrier of teaching ESP courses in our academic settings.

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